HISTORY AND PURPOSE OF TECHNOCRACY

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Howard Scott
Founder and Director-in-Chief of Technocracy Inc.
From 1933 until his death in 1970

PREFACE

This pamphlet consists of an exchange of letters between Director-in-Chief of Technocracy Inc., Howard Scott, and J.K. Faulkner which was thought to be of interest to the public and was first published in The Northwest Technocrat of July 1965 along with two articles referred to in Howard Scott's letters.

J.K. Faulkner, assistant professor of economics at Western Washington State College, Bellingham, Washington, while researching for a Ph.D. in Economics, had first contacted various Sections of Technocracy Inc. in the northwest before writing his first letter to Howard Scott.

Howard Scott's careful and complete response to Faulkner's questions contain information about Technocracy's history and purpose that is useful to a better understanding of Technocracy.

Mr. Howard Scott
Director and Chief
Technocracy Inc.
Continental Headquarters
Rushland, Pennsylvania

March 6, 1964

Dear Mr. Scott:

I expect by this time you have received a letter from Mr. Harry Briggs indicating my interest in Technocracy, Inc.

I am working on a Ph.D. in Economics at the University of Utah and I have taken as my dissertation topic Technocracy. Technocracy has not received the attention in the professional literature that its currency in the 1930's, 1940's should indicate. As a consequence of this, along with an interest in Technocracy from my undergraduate days, I have decided that this is what I would like to do:

I. Trace the intellectual antecedants of this movement, and yourself in particular, for whatever impress or contribution may have been relevant in its formation.

II. It is also important to indicate the history of the movement from the initial formation of the Technical Alliance, to the first announcement of Technocracy on June 16, 1932 until present.

III. The other major factor which will probably be the most difficult is to indicate well the theory of energy determinants, such that the economist as well as those that might pick up the thesis might tell something about Technocracy.

With this rather brief outline indicating the general direction of the dissertation, I would hope that you might help me in this task. The following represent questions which have plagued me, and while I am sure many of them have been asked before by the press, it is important that you answer rather than my being forced to go to these secondary sources.

1. What influence did Soddy have on your theory of energy determinants?

2. Do you feel in looking back over the period that Veblen, Bellamy, Frederick Taylor (scientific management) had much influence on your outlook of scientifically run state?

3. How does the prediction of the inevitable collapse of capitalism compare with that of Marx?

4. Was there anything to the suggestion that you were active in the I.W.W.? (Outside of the two articles that you wrote for the One Big Union Monthly.)

5. Members locally point out that there were attempts to take over your ideas and the organization of Technocracy, and as a consequence of this it was incorporated. Could you tell me who was involved in this attempt, and something of the groups that sprung up to "compete" with Technocracy after the break at Columbia in January, 1933?

6. If you are free to give me information on membership, both historically and currently, I would appreciate having some idea of the relative figures both high and low between 1933 and present.

7. One of the recurring criticisms of the Technocrats was their refusal to indicate how the Technate might be accomplished. Admitting that with the collapse of the price system, something like the Technate could be installed, why would it? What factors make it a feasible alternative? I am primarily concerned here with a refusal of the Technocrat to concern himself with political action.

8. There were some reports that the Technocrats had in mind the use of physical force (Chicago, April 1933) to accomplish their goal. I have found no explicit statement in any of your literature indicating that you subscribe to it, but neither have I found a way of accomplishing the Technate through political means. Could you elaborate directly on this?

9. Have you felt that Technocracy has had some influence on political affairs, despite your disavowal of participation in them?

10. What response, if any, did you receive from the U.S. Government on your offer to put the organization of Technocracy at their disposal during early 1942?

11. The major criticism that an economist makes of the technocratic distribution system is that it has no theory of value, no demand theory. It also seems implicit in the technocratic system that scale of the operation is not dealt with adequately. That is, it appears that you don't have to worry about the size of the firm or the plant or the unit.

12. One suggestion that I ran into somewhere suggested the distribution system was somewhat like the army. Could you comment?

I have been unable to find any theses that have been written on Technocracy. If you have any knowledge of any being written, I would very much appreciate hearing about it. I am thinking now of those that might be in the process. I have gone through the indexes and abstracts, but have not found anything.

I would like very much to meet you. I hope that if I ever have more than two dimes to rub together that I will be able to get back to Rushland.

As this study progresses, I may have additional questions which only you can answer, which I respectfully hope that you will be able to do.

Sincerely,

J. Kaye Faulkner

J. Kaye Faulkner
Instructor of Economics

JKF:cz

(This letter of March 6, 1964 was followed by a letter of April 16, 1964. We have omitted the latter, because it was essentially the same as the former, except that, curiously, it does not include question number 4 of the March 6 letter.)

J. Kaye Faulkner
Western Washington State College
Bellingham, Washington

May 15, 1964

Dear Mr. Faulkner:

Your letters of March 6th and April 16th, 1964, are at hand. Sorry that due to travel absence from CHQ we have not answered your correspondence sooner. We'll try to make amends and, at least in the preliminary correspondence, answer some of your questions.

In Section II, you state that it is important to indicate the history of the movement from the initial formation of the Technical Alliance until the present. That is indeed, Mr. Faulkner, a tall order. If Technocracy Inc. had the staff of "Time," "Life," and "Fortune," or the ghost writers available to the President of the United States we could entertain a project of this magnitude without any qualms whatsoever. But with our limited resources of personnel -- may I repeat -- that it is a large order.

We opened our first office in July 1918 at 107 Waverly Place, just two buildings off Washington Square, New York City and in 1920 we took a whole floor at 23 West 35th Street. We still have at CHQ one of the Keuffel-Esser drafting tables we had at 107 Waverly Place in 1918.

The Technical Alliance conducted its affairs under the direction of a temporary committee, with Sullivan W. Jones, Secretary. The temporary organizing committee was composed of the following:

Howard Scott, Chief Engineer

Frederick L. Ackerman, Architect
Carl L. Alsberg, Chemist
Allen Carpenter, M.D.
L.K. Comstock, Electrical Engineer
Stuart Chase, C.P.A.
Alice Barrows Fernandez, Educator
Bassett Jones, Electrical Engineer
Benton Mackaye, Forester
Leland Olds, Statistician
Charles P. Steinmetz, Electrical Engineer
Richard C. Tolman, Physicist
John Carol Vaughan, M.D.
Thorstein Veblen, Educator
Charles H. Whitaker, Housing Expert

Sullivan W. Jones, Secretary

(The above taken from the original leaflet printed in 1919 by the DePamphilis Press of New York.)

I was on this committee, as you will notice, as Chief Engineer and Exectutive Director. It might be interesting to give some of the background of the members of the organizing committee:

Frederick L. Ackerman was a well-known architect, designer of buildings for Cornell University, big apartment buildings, etc., etc. Dr. Carl L. Alsberg was chief chemist of the Bureau of Chemistry, Department of Agriculture, Washington, D.C. Allen Carpenter was a prominent doctor practicing in New York City. L. K. Comstock was head of Comstock Company, the largest electrical contractors in the New York area and later the firm that had the entire contract for wiring and lighting the 1939 New York World's Fair. Stuart Chase was originally employed in a government department, Washington, D.C. Dr. Alice Barrows Fernandez was Deputy Director of United States Department of Education in Washington, D.C. Bassett Jones was a member of the firm of consulting engineers, Myers, Strong and Jones, consulting to General Electric, Otis Elevators, etc., etc., and co-developer with Clarence Birdseye of the Frozen Food Process. Robert H. Kohn, was president of the American Institute of Architects. Benton Mackaye originally was in the Department of Forestry of the United States and he worked for a time in the office of the Technical Alliance. He later formulated and promoted and was the father of the Appalachian Trail. His brother was Percy Mackaye,poet and dramatist. Leland Olds was a statistician who became the first secretary of the New York State Power Authority and later was appointed by Franklin Delano Roosevelt to be Federal Power Administrator of the United States in his administration. Charles P. Steinmetz of the General Electric needs no further elaboration.

Dr. Richard C. Tolman was professor of physics at the University of Illinois, and during the latter part of World War I and at the time of the Technical Alliance was director of the Fixed Nitrogen Research Laboratory in Washigton, D.C. He later became Dean of Physics at the California Institute of Technology and when World War II began President Roosevelt made him Atomic and Scientific representative of the United States on the Combined Chiefs of Staff of United States and Great Britain. John Carol Vaughan was a noted surgeon, head of Vanderbilt Clinic and chief surgeon of one of New York's hospitals. Thorstein Veblen, of course, you are well acquainted with. He was an educator and occupied various academic positions during his professional career, the last of which was at the New School of Social Research in New York City. Charles H. Whitaker was editor at that time of the Journal of American Institute of Architects.

Early in 1920, the Technical Alliance took a whole floor at 23 West 35th Street. It is interesting to note in passing that these same premises were occupied by a Section of Technocracy in the middle 30's. During our tenure at 23 West 35th Street, Stuart Chase, Benton Mackaye and others worked in the offices of the Technical Alliance. It is also interesting to note that Mrs. Agnes Delima was my secretary and stenographer in the Technical Alliance office at that time. She later became secretary of the corporation of the New School of Social Research, and served until her retirement a couple of years ago.

During the time that we occupied the quarters at 23 West 35th Street, we received considerable publicity in interviews published in the New York World and New York Call Magazine and other papers and periodicals at that time. We have full page originals in our scrap books here at CHQ. This publicity, while it could not in anyway be compared to the publicity of the 30's, still for that time was considerable. Some of it was done by Charles W. Wood, one of the best feature writers of the day, and interviewer of such public figures as Ford, working with Collier's and Saturday Evening Post. It was during this period that we took on several research projects. The largest, the most financially lucrative, was the job for the Railroad Brotherhood, which occurred at the time of the Plumb Plan, and it succeeded in breaking the front page of the New York Times. Stuart Chase and Otto Byers were the chief workers, the lead men on this project. Otto Byers was a professional engineer with the Baltimore and Ohio Railroad, whom Franklin Roosevelt later appointed Deputy Administrator of the Office of Defense Transportation of the United States.

Another project which we undertook, of lesser magnitude than the one of the Railroad Brotherhood, was for the Industrial Workers of the World. We still have here at CHQ two long blueprints listing the interlocking of over three thousand corporations of the big five packers -- all totally owned; equally impressive, of all those in which the five owned 50 percent or more. The Railroad Brotherhood and I.W.W. were merely clients of the Technical Alliance and paid for the services rendered. So therefore, referring to your question #4, of March 6, 1964: "Was there anything to the suggestion that you were active in the I.W.W. outside of the two articles you wrote for the One Big Union Monthly," may I say your information is incorrect. I never was active in the I.W.W. or in any organization, labor union or political party, nor was I ever a member. The two articles in the One Big Union Monthly were not written for the One Big Union Monthly, but were written prior to this, at the time of President Wilson's "Fourteen Points," which you will find enumerated in the first article. The reason for the

publication in the One Big Union Monthly was that the Chairman of the Board of I.W.W. thought as they were engaging us in a research project, they should have something on which to publicize their relationship and their necessary expenditures. We said we knew of some articles and they seemed to be satisfied with them. We never heard from the One Big Union Monthly after that.

In Question #1, you ask what influence Soddy had on our theory of "energy determinants."

We derive most of our concepts of thermodynamics and energy determinants from the works of J. Willard Gibbs, and we had formulated most of our concepts of modulus and calculus of design prior to our coming in contact with Soddy's "Wealth, Virtual Wealth and Debt" in 1927. Frederick Soddy was a chemist and scientist, completely unknown to us, as we were unknown to Soddy. Soddy formulated his ideas in the British scientific and academic world of his time. He starts out on the correct course, and then gets lost in the muddle of values shortly after page 100, and he loses his original direction and analysis in the mass of money and economic values. Soddy himself, in a newsreel interview taken in his office and laboratory, presented in the early 30's a very nice admission and commendation for the development of Technocracy in the United States. This newsreel, I believe, was a Fox Movietone. We wish Soddy had gone on as he first started, as a chemist and thermodynamicist, and we feel that he would have reached, ultimately, the same conclusions we had arrived at.

Question #2 asks, "do you feel in looking back over the period that Veblen, Bellamy, Frederick Taylor had much influence on your outlook of a scientifically run state?"

We had never read Veblen, nor had we any contact with him until September 1918. He published a series of articles in the "Dial Magazine" in 1919. We had had a series of conferences and seminars in 1919 in which Veblen and others brought the economists and sociologists, and we brought the scientists and engineers. The last five Veblen articles appeared in the "Dial Magazine" from May 31, 1919, page 55, to November 1, 1919, page 373. We objected to Veblen's interpretation at that time and his advocacy of a Soviet of Technicians, taking the position that social change on this Continent would not be analogous to social change anywhere else in the world. The "Dial Magazine" went out of existence as a magazine of public affairs and became a magazine of poetry and culture, and the Johnsons, publishers, took safaris in Africa. Osa appeared in many of the african photographs.

Veblen faded out of the picture in New York after he left the New School of Social Research, and declining health limited his activities. At least his insight into many things was quite interesting. Whether he would have gone on and been able to envisage an operating social mechanism of a technological socialization for the distribution of abundance, in all kindness, we cannot say.

Bellamy was an artist and did a lovely job in his "Looking Backwards" and his other book, "Equality." But we would like to point out that Jules Verne in his book, "Twenty Thousand Leagues Under the Sea," envisaged a marvelous submarine. The book was so intriguing that it enjoyed a world-wide sale. Nevertheless, no naval architect or designing engineer would attempt to design a submarine from Jules Verne's artistic concepts displayed in his "Twenty Thousand Leagues Under the Sea." It just wouldn't work. The same can be said of Edward Bellamy. Edward Bellamy's was an idealistic projection. He had the intuitive feeling of the artist, but it also was entangled in human beings on the theory they could be elevated to such a high degree of perfection in their moral and ethical values that a new society could be made to function on the essence of their betterment.

Frederick W. Taylor developed his theories of scientific management while working at the Midvale Steel. Out of his Midvale Steel experiments with time studies and that big husky Dutchman that he had as lead man in his pig iron gang at Bethlehem Steel, Frederick Taylor came up with a set of guide rules on how management could obtain greater productivity from labor by making human labor more efficient.

Taylor's series of scientific time studies and measurements of work (human effort), scored quite a hit in the era preceding World War I and just after World War I.

A number of engineers became so-called disciples of Frederick W. Taylor, even though he had passed on to his reward in 1915. A considerable number of engineers took up the so-called scientific management of Frederick Taylor and further embroidered it and publicized themselves as efficiency engineers and management consultants. Henry L. Gant had been Taylor's assistant at the Midvale Steel and the Bethlehem Steel Company. Gant, Morris L. Cook, Leffingwell, Emerson, H. K. Hathaway, Frank B. Gilbreth, Harlow S. Person and C.J. Barth were among the many prominent advocates of Taylor's efficiency system with some variations. Gant, Barth and others tried to start an organization, "The New Machine." "The New Machine" never got off the ground; all of them wrote articles and delivered papers in the engineering societies and management conferences. But their chief purpose was in creating a

national image so they could sell their services to large-scale private enterprise as scientific managers and efficiency engineers who would be able to install the system that could extract more productivity from the American worker. We never had any use for Taylor nor any of the efficiency or scientific management crowd. They never realized that human toil was the last thing in the world you had to be efficient about; the only way to be really efficient is to eliminate it entirely, and this would have been heresy to any of the Taylor, Gant, Barth, Cook efficiency crowd. It is sad to contemplate that men of the technical ability of the names mentioned in this paragraph were so lame in their thinking and social outlook that they missed the boat so completely. Who in hell wants to be efficient with a shovel, and what sense would there be even if you succeeded? They should have had their heads opened with a shovel, it might have been more effective.

The formulation of our concepts began prior to World War I and during World War I and developed from then on. Some interesting examples: We had already developed our Continental Accounting system with our geographical division numbers, namely, a combination of the latitude and longitude of the southeast corner of a quadrangle, giving you an accurate location of any place on the Continent or the world without respect to political boundaries, place names or languages. This in conjunction with the conductivity characteristics of carbon coding with a modified Dewey decimal system enables one to devise a Continental accounting system and medium of distribution, becoming at once a Continental accounting system and continuous inventory of both production and distribution on an hourly basis, Continent-wide. You have to bear in mind, of course, that the system was devised before computers were developed to handle the instantaneous computation necessary under this system. We preceded the computers by some years. We brought out our million and a half volt D.C. power transmission in 1923. We brought out our calendar prior to that, in 1921 and 1922. We are stating this merely to give you some idea of the periodicity of the development of events of the organization and its concepts.

Question #5 asks, "Members locally point out that there were attempts to take over your ideas and the organization of Technocracy and as a consequence of this it was incorporated."

The incorporating papers of Technocracy Inc. were originally drawn up in the fall of 1932. This was done primarily to restrain the terrific flood of unauthorized material, from every writer from the far right to the far left attempting to climb aboard the bandwagon. The granting of the charter

of incorporation of Technocracy Inc. was delayed for some months due, apparently, to political pressures brought to bear in Albany, the capital of the state of New York. We regret that the charter was not issued in '32 as we originally intended; it would have saved a considerable number of headaches. The incorporating organization charter was secured by the law firm of Cadwallader, Wickersham and Taft of New York City. The incorporation of Technocracy had nothing to do with any attempt on the part of any group to take over Technocracy or to use your own words, "compete with Technocracy." A meeting was held in the Hotel Morrison in Chicago, Illinois, in the last part of June, 1933; this was prior to our break, so-called, with Columbia University. There were, at the time of the Chicago meeting, over 20 different organizations of technocracy on the map, from a duly incorporated political party in the state of Illinois, to an Institute of Technocracy in California, and various other organizations; also included in so-called "Technocracy" were organizations from New York, Minneapolis, and the All-American Technological Congress of Chicago, to name but a few. There were several magazines and newspapers being published without any authorization or connection with us whatsoever. Gernsbeck in New York; one in color, printed in Minneapolis; the "Technocracy" of Obispo Beach in California, and many others. The competition which you speak of began with the burst of publicity in 1932, but the competition did not become politically organized until some time later. That is a whole story in itself. The amount of material that one has to wade through to document it is beyond the time at my disposal in writing to you at this moment.

In question #3 you ask, "How does the prediction of the collapse of capitalism compare with that of Marx?"

Technocracy never had any philosophical predictions on the inevitable collapse of capitalism. The Marxian political philosophy was a condemnation of the ills of so-called capitalist society and a propaganda political document that all wealth was created by work, labor and toil, a theme which he sums up in his "Workers of the World Unite." Marx, of course, envisaged abolition of one estate and the creation of another, and that the capitalist class should be expropriated and the workers be installed as the new social elite in a socialist world. Technocracy Inc. has never held any brief for the so-called "capitalist class," or for that matter for any proprietory interest or group in our social structure. Marx only wanted to eliminate the so-called exploiting and owning classes. We contend that it is hardly worth undertaking. What Technocracy has always contended is that if sufficient energy consuming devices are installed and the total amount of extraneous energy consumed per

capita reaches or exceeds 200,000 kilogram calories per capita per day, toil and workers alike will be eliminated, and, when toil is eliminated, the bourgeoisie will likewise go down the drain of history. Technocracy has always contended that Marxian political philosophy and Marxian economics were never sufficiently radical or revolutionary to handle the problems brought on by the impact of technology in a large size national society of today. It is sufficiently revolutionary to be of some importance and temporary application to under-developed areas of the globe. We have always contended that Marxian communism, so far as this Continent is concerned, is so far to the right that it is bourgeois. It is well here to bear in mind, the technological progression of the next 30 minutes invalidates all the social wisdom of previous history. Technology has no ancestors in the social history of man. It creates its own.

We could give you the energy calculations in many examples, but that takes paper and time. A simple one in agriculture: In order to handle the food production where the costs are lowered and to where the speed is so great that it becomes applicable to large scale production, concepts and design factors go beyond anything that the Russians or Chinese have ever attempted, because they base their concepts on the collaboration of human beings and the values of human toil and hand tools, although they were trying to adapt these concepts to the introduction of mechanical means. Neither Russia nor China has as yet developed the design to handle even the production of wheat in their area, let alone other commodities. The knowledge is here; and it has been done, their design factors have been proven. It requires more energy per minute than has ever been employed in the cultivation of the soil anywhere in the world in history, and even without further development, one unit now in existence plants and fertilizes 70 acres of wheat per hour. You cannot do it with human beings on the land. You have to move the human being off the land to make way for powerful equipment which is not yet in quantity production any place on the globe.

In question #8, you state there were some reports that Technocray had in mind the use of physical force (Chicago, 1933) to accomplish their goal. We know of no such meeting in April of 1933 in Chicago. It did not exist. There has never been any statement from Technocracy that force ever was contemplated. We have stated at the very beginning we would never ask the public of this Continent to engage in either ballots or bullets. That has always been our basic proposition. Technocracy Inc. is not a political party; it does not run candidates for political office, nor does it accept for membership any one who is a member or officer of any political party, right, left or center. Voting is not

construed as membership in a political party. Technocracy Inc. is in the nature of a membership organization, of social consultants; its basic concepts and design are really an attempt to found a science of geo-mechanics, a science of how to operate large areas of this earth's surface, beneath and above. United States has in excess of 12 billion h.p. of installed prime movers in use today. Only seven percent of that 12 billion are in use in all manufacturing, mining, railroading, and central stations. Approximately 93 percent are in automotive vehicles. If the amount of percentage of prime movers in use in all production and physical distribution were doubled, there would be 20 million adult human beings in United States who would no longer be required in the production and distribution of so-called physical wealth in these United States. It wasn't Marxian communism that stopped the advance of the fascist armies of western Europe in Russia from 1941 to 1945 -- it was the application of modern technology to their productivity and military equipment. They lost 10 years in their doctrinaire schismatic conflicts within their party and their administration. If they had had the advantage of 10 years of planned technology, one could only contemplate that their technology would have been so effective that there would have been no fascist residue left to stir up further conflicts in all of Western Europe.

Understand, human toil and hand tools, from at least Hammurabi's time (about the 19th Century, B.C.) down to the present time, the annual increment of physical production, under human toil and hand tools was so small that it required a century to amortize the principal and interest of any major debt. Therefore, without technology, there would be no possibility of any social renovation, only a perpetuation of human toil and hand tools. The capital re-investment rate under human toil and hand tools occurred once in a century. Today, in the United States we have technological equipment that, if operated at 75 percent capacity or more, will amortize out its total indebtedness in 5 1/4 weeks, thereby rendering possible a capital re-investment rate of 964 times in a century. Technocracy Inc. has seen the need for designing the operating system in any social mechanism of tomorrow when the total number of energy consuming devices compels the re-orientation of the entire operating factors of a Continent-wide social system. To merely expropriate the exploiting and owning classes is merely a change of legal title and one in this technological age of unimportance and futility. There is nothing, whether it is railroads, transportation, highways, power transmission, continental hydrology, pollution, soil erosion, sewage, machines for living -- there is not a single design proposition today that would have validity tomorrow. There is no sense taking over the ownership of

such obsolescence; you would be compelled to operate the obsolescent antiquity under the same losses, the same headaches and same defeats as they do today. It is only when the load factors of operations and complete design are altered according to energy factors that a resultant comes about which would be beyond the dreams of all social philosophers, one wherein the planned operation of the whole is many times greater than the sum of its parts.

Technocracy, not being a political party nor a conspiratorial body, has never had any intention nor any wish to assume power, political power that is, in this Price System. We have never had and never will have any theory of assumption of political power. After all, the consulting engineers that design the great suspension bridges, or any other work, do not make the working drawings, nor do they fabricate any of the materials. The design materials are fabricated by different organizations or erecting companies, who erect the structure. But the orders today are given by the fiat power and economic power of the political state and its dominant interests.

Technocracy has proposed the design of almost every component of a large scale social system. True, it would require a technological orchestration of all physical operating factors, but a technological socialization is far more reaching, more drastic and more pervasive than anything that Marx or any socialist ever thought of. So, as you continue in your study of Technocracy, you will find that it is incorrect to view us as being in any way analogous to any party or political philosophy, or to any agitators of social change for any reason whatsoever. We have never advocated social change. We have pointed out the factors that would create it and have come pretty close to predicting its arrival, but that is an entirely different thing than advocating social change per se, for social change's sake. You will find it extremely difficult to change from sociologic and economic thinking to one of Technocracy; it is well to realize here and now that Technocracy, like science, has no truth; truth is a philosophic absolute, while in Technocracy all things are relative. We are concerned with the consumption and control of energy and the energy consuming devices and their resultant production and consumption, which are all measurable, and have nothing whatsoever to do with truth or philosophic values.

You will find that all the values that you or any other person have acquired regarding culture, art and the humanities, may be interesting to talk about, but have little use in designing any comprehensive system of tomorrow that can be controlled; we are not talking now of police

control -- we are talking of technological control; nor do we mean regulation. Regulation, of course, comes in after the origination, after something is started, but control comes in at the beginning or origination.

The subjective entities of personal living are undoubtedly better in the United States of 1964 than they are in many parts of the world and, of course, much better than they were 64 years ago. It is always interesting to be able to engage in interminable discussions regarding this, but the problems that United States faces have been cumulative and are no longer soluble by the considered opinion of conscientious, right thinking people. The considerations of yesterday regarding the conduct of human affairs dealt with, primarily, the regulation or coercion of the behaviour of human beings so as to promote a stable society of their time. Therefore, all social systems of the past have been governments of men over men, of laws (not physical laws -- legal) for preferred exploitation of human beings and the national resources of their area.

With the technological application of physical science involving ever-increasing energy consuming devices and technological equipment, the system of tomorrow will be a system of operation and control of energy and things, wherein decisions will have to be rendered as the closest approximation of the next most probable energy state, made at the speed of energy transmission and not awaiting the deliberation of one good man and true, or a thousand. Their deliberations would take too long, and the mechanism would be out of control. This is being ironically brought home every day in the corporate world of the present, especially those that install the latest computers. Computers can solve practically all of the problems of the corporate entity, except the most urgent one, that of finding someone who can ask the computer an intelligent question that involves direction and design.

Thanking you for your interest, I remain,

Very truly yours,
TECHNOCRACY INC.

Howard Scott
Director-in-Chief

HS/skb

Howard Scott, Director in Chief
Technocracy Inc.,
Continental Headquarters
Rushland, Pennsylvania

August 17, 1964

Dear Mr. Scott:

I very much appreciate your letter of May 15, 1964. It was very kind of you to take the time away from your duties to answer a very long and detailed series of questions. It is too bad that I cannot get back east or that you will not be making a continental tour into the Pacific Northwest states so that we might sit down and talk about this, exchanging ideas in such a way that I could get a better idea of what you have in mind.

There are, however, still several questions which remain unanswered which I was not able to incorporate at the time I wrote the letter of March 6, 1964. The first question has to do with the contribution, if any, of William Smythe. There were several newspaper articles or short announcements which alluded to Smythe's origination of the word "Technocracy." This was found in three articles in Industrial Management. The first was "Human Instincts in Reconstruction," in February of 1919. The second, "Technocracy, National Industrial Management," March 1919; and thirdly, "Technocracy, Ways and Means to Gain Industrial Democracy, May 1919. Did Smythe contribute in any way to the thought of what was later to be Technocracy, Inc.?

In one of several book reviews on Harold Loeb's Life in a Technocracy a reviewer suggested that it was a pale Looking Backward. This is the important justification for raising the question: Did you feel at the time that Harold Loeb's book in any way represented the possible vision of how life in a Technocracy might be and would become?

The third question is in part the response to your answer to question number two on page four with regards to Veblen. If Veblen did not influence your thought, do you think that you influenced Veblen's thoughts and the articles which appeared in Dial magazine?

Fourthly: Was Technocracy incorporated in the State of New York?

The fifth question, in reference to the earlier question number eight in my letter of March 6 and answered on page eight of your letter, is in regard to the use of physical force. I mentioned Chicago 1933 in April of that year. I

was mistaken on the date. It was June of 1933 and it was during the Continental Convention on Technocracy. You were quoted as saying, "Technocracy would gain its end by use of force and bayonets."

Another factor which has struck me as being of some consequence has been the similarity between the organization chart of the Technate and the Wobbly Wheel. I also notice that in a pamphlet put out by the All America Technological Society in 1933 that their organizational structure would fit somewhere between the two. Would you care to comment on this?

A seventh question, which seems to me to be quite important, was the one having to do with whether you influenced FDR at all during World War II. And here I have in mind the ads which appeared in a number of newspapers and apparently over the radio calling upon FDR to appoint you Director General of Defense. I would like to restate question number twelve, March 6. I ran into the suggestion that your distribution system was somewhat like the Army. Would you comment on this? This is of primary importance to me because of the question of value in a distribution system.

I have been unable to find any thesis or books done on Technocracy which would take an objective position with respect to its contribution, its theory, and so on, from an outsiders viewpoint. That is to say, most all of the contributions have been either for or against rather than taking a neutral middle stand in a scientific objective way. Do you have any such information which might aid me in my endeavors to research this particular problem? It does seem that something like this should have been done earlier and as a consequence I would like very much to have access to such information if it is available.

Question nine: Were there any members of Technocracy Inc., who moved from the IWW into Technocracy from the latter part of 1932 until the early 40's. Did any Wobblies find any satisfaction in the Technocratic Movement? I have in mind Ben H. Williams. I am not sure he is the same Ben Williams who was active in the IWW but I do know that there was a man called Ben H. Williams in both movements. Would you care to comment on this and would there be any other people who might be involved in both movements.

Question ten: While I don't really feel that a membership in and of itself either lends support to an argument or to an idea I would like to include something about membership figures if you feel free to release them. Historically is my primary concern. If you don't feel that you want to

bring it up to date that is fine, but I would like to have some idea of the membership from 1932 until 1940 or 1945 if you are so inclined.

Sincerely yours,

J. Kaye Faulkner

J. Kaye Faulkner
Assistant Professor of Economics

JKF:mf

Mr. J. Kaye Faulkner
Western Washington State College
Bellingham, Washington

November 25, 1964

Dear Mr. Faulkner:

Your letter of August 17 landed in here in the midst of one of our busiest periods. During August and September we have a considerable number of visitors every year to CHQ, those on vacation with time available and on the long holiday weekend of Labor Day. CHQ had over 30 guests over the holiday weekend. To house and feed that number, additional to the Staff, is of course, somewhat of a project in itself.

In your letter of August 17, 1964, you state that your first question "has to do with the contribution, if any, of William Smythe." There were several newspaper articles or short announcements which alluded to Smythe's origination of the word, "Technocracy." This was found in three articles in Industrial Management. The first was "Human Instincts in Reconstruction," in February of 1919. The second, "Technocracy, National Industrial Management," March 1919; and thirdly, "Technocracy, Ways and Means to Gain Industrial Democracy," May 1919. Did Smythe contribute in any way to the thought of what was later to be Technocracy Inc.?

Years ago we did some checking, and we found that the word "Technocracy" was not originated as a word either by us or by William Smythe, but had been used by five other persons back as far as 1882. But all of the ones who had used "technocracy," including Smythe, had never used it as a definition and a name of a system of technological design and operation of a Continent. As far as we know, we never had any personal contact with William Smythe, nor did we have any knowledge of his having written articles in which he used the word until several years later. Our use of the word came about because we tried to find a word which was descriptive, and in reviewing the origin of the words "democracy," "autocracy," "plutocracy," we found -- "democracy" (using the combination of the Greek root word "demos") -- the rule of many; "plutocracy" -- the rule of wealth; and "autocracy" -- the rule of one; we picked on the combination of "technocracy" to mean the rule of science and skills. This was our approach, and we were not concerned as to whether we were the originators of the word, because that is a common process that can be easily arrived at by any one who has the knowledge of Greek root words. So far as we know, Smythe was associated with, if not part of, the Scientific Management Efficiency Engineers and the Taylor Society that came out of World War I. As we had nothing in

common with efficiency engineering and scientific management we therefore were unconcerned as to how the word was used by others. We were only concerned with our own use of the word. After all we were creating an unique idea and we wanted a name for it, and "Technocracy" was the name we decided upon. Our decision was not influenced by any of the writers of the time. We were too busy formulating the principles of design and the mathematics of area energy operations to have much time left to be concerned with anything else.

In the third paragraph of your letter of August 17, you state, "In one of several book reviews on Harold Loeb's Life in a Technocracy a reviewer suggested that it was a pale Looking Backward." You ask the question, "Did you feel at the time that Harold Loeb's book in any way represented the possible vision of how life in a Technocracy might be and would become?"

Back at the time that Harold Loeb was seeking a publisher for his book, three publishing firms turned down the publication because Technocracy refused to approve the manuscript in any way, shape or form. Harold Loeb was never a member of Technocracy. He later tried to get in on the action when he, Felix Fraser and Montgomery Schuyler tried to start the Continental Committee on Technocracy. They attended the convention at the Hotel Morrison in June of 1933. They afterward attempted to tour across the United States to organize a spurious Technocracy. The Roosevelt administration set up in New York a National Potential Product Capacity Survey. Harold Loeb, Felix Fraser, Montgomery Schuyler and others were employed on this federal project, and therefore had United States federal payroll numbers. It is well to note here that the Roosevelt administration in giving birth to the New Deal did its best to grace the arrival of its new political child and vest it with a semblance of social vision, by drawing into the administration every erstwhile Technocrat or one-time associate of mine. The list is a long one -- Leon Henderson was made Federal Price Administrator. Leland Olds was made Federal Power Administrator. Otto Byers was made Deputy Administrator of the ODT (Office of Defense Transportation) of the United States. Otto Byers was a professional engineer in the employ of the Baltimore and Ohio Railroad. He and Stuart Chase were the chief researchers of the Technical Alliance, in doing the report submitted by the Technical Alliance to the operating Railroad Brotherhoods of United States. Dr. Richard T. Tolman was made Atomic Representative of the Combined Chiefs of Staff of United States and Great Britain. Stuart Chase, Bassett Jones, Frederick Ackerman, Harold Loeb, Felix Fraser, Montgomery

Schuyler, Dal Hitchcock and many others were all on the federal payroll of the Roosevelt Administration. John Carmody was head of Rural Electrification and later of the Maritime Commission, and last but not least, in charge of distribution of funds in Europe of the EAC, the European Advisory Commission, in the distribution of Marshall Plan Funds.

There are many others, but it would take too long to enumerate them all and their various positions. Harold Loeb was only one of a number who attempted to jump into the parade and cash in on it, whether for monetary reasons or reasons of prestige, we do not know, and we do not care. But he was only one of a thousand or more who attempted to effect a similar attachment to Technocracy. His book is a piece of imaginary fiction and the kindest thing we can say is that Bellamy did far, far better many years ago, but both Looking Backward and Loeb's Life in a Technocracy have nowhere in their pages the modulus and calculus of the design of an operating technological mechanism for the Continent of North America.

The third question of the first page of your letter of August 17 is "If Veblen did not influence your thought, do you think that you influenced Veblen's thoughts and the articles which appeared in the Dial Magazine?" I first met Thorstein Veblen in the early fall of 1918 at the old Faculty Club of Columbia University. I was introduced to him and to half a dozen others by Montgomery Schuyler, and Merrill Rogers who was advertising manager of the Dial Magazine at the time. As a result of the first meeting with Veblen, Dr. Horace Kellen, Dr. Wesley C. Mitchell, Dr. Johnson (later to head the New School for Social Research), Dr. James Harvey Robinson, Miller and others, it was proposed that a series of seminar dinners be held in which Veblen would undertake to bring the economists and sociologists, if I would make a similar undertaking to bring a number of scientists, technologists and engineers. A number of these dinners were held at the Columbia University Club on West 43rd and other places in New York. They were quite interesting at that time. Dr. Robinson used to sit over in the corner and make notes, and he wrote his book "The Mind in the Making" from notes taken at those dinner seminars. Veblen and a small group, mostly economists associated with him, were trying to write articles on the American social structure when we came along and introduced our concepts of technology and energy determinants.

Veblen wrote a series of articles for the Dial Magazine. They were later incorporated and printed as a book under the title of "Engineers and the Price System." The Price

System, as you may be aware, was Technocracy's term and not Veblen's. The last article (both in the Dial and then later in the book Veblen called "Memorandum on a Practicable Soviet of Technicians") we disagreed with, because our analysis contended that social change on this Continent would take an entirely different pattern and would not be analogous to the development in any other part of the world. It would be peculiar and endemic to the technological development of this Continent.

Our association with Veblen and his dry sense of humor was rewarding, but at the same time it was slightly disappointing, chiefly because he didn't have the energy nor the initiative, due to ill health, to entertain a great departure from his academic background. These remarks are not to be construed as indicating that there had been a personal break with Thorstein Veblen; there was not. The New School for Social Research got underway in a few rooms in one of the old set-back buildings on West 23rd St., now occupied by the giant apartment buildings of London Terrace.

Mrs. Dorothy Whitney's donations to the New School for Social Research were really a subsidy to pay Thorstein Veblen an income as faculty member of this organization.

Thorstein Veblen, in a meeting in my apartment in New York City, said I was the only one that had kept him up until 3:30 in the morning. The group around Veblen became frightened about the ideas and social implications of Technocracy, back then, in 1919; they were frightened because in their eyes it became too revolutionary, and they drifted toward the liberalism that is now a prime exhibit of the New School for Social Research and other accredited educational institutions. In 1919-1920, Mrs. Agnes Delima was my stenographer and secretary in the Technical Alliance. She later became the secretary for the corporation of the New School for Social Research, a board member.

The last several articles of the Dial Magazine were undoubtedly written by Veblen because of the contact of the Veblen group with the Technical Alliance. They were attempting to ride what they thought might be "the wave of the future" and Veblen in the last few articles in the Dial was undoubtedly going along to some extent with the master minding of one Ardzrooni. He was one of the famous Ardzrooni brothers, raisin kings of California, who was engaged in acquiring a university degree late in life and was undoubtedly magnanimous in his considerations in furthering special educational projects and was in those early days associated with the Veblen group. And so it turns out that there are even raisins in the pie.

Your fourth question, "Was Technocracy incorporated in the State of New York?" Yes, it was. Our attorneys who secured the incorporation were Cadwallader, Wickersham and Taft.

The fifth question, also on page one of your letter of August 17, "in regard to the use of physical force," you stated, "It was June of 1933 and it was during the Continental Convention on Technocracy. You were quoted as saying, 'Technocracy would gain its end by use of force and bayonets.'"

As we stated in other communications, no such statement has ever been made by me nor by Technocracy Inc. Our original declaration at that convention, and which since has been printed in our literature far and wide, was "that Technocracy would never ask the public of these United States and Canada to indulge in either ballots or bullets." Quite a different statement from what you claim I was quoted as saying.

On page two of your letter of August 17, you state "another factor which has struck me as being of some consequence has been the similarity between the organization chart of the Technate and the Wobbly Wheel. I also notice that in a pamphlet put out by the All America Technological Society in 1933 that their organizational structure would fit somewhere between the two. Would you care to comment on this?"

We do not see any resemblance, as the Organizational Chart stretches across the wall of a good sized building, and is capable of extension and expansion. We never had any Wobbly Wheel at the time we drew the schematic organization of a Technate. We see no resembance whatsoever.

After all, Technocracy was not responsible for the formation of the All American Technological Society in 1933. This organization was dreamed up by General Wood, head of Sears Roebuck, Major General Westervelt, vice president of Sears Roebuck, in charge of production, Blythe and Co., whom you might call the Stone-Webster of the middle west, and Mall of the Mall Tool. Leaving out Major General Westervelt, they were a pretty reactionary crowd. That was the organization that secured swank offices on the mezzanine floor of the Morrison Hotel, with secretaries and stenographers and hired the editor of a Chicago newspaper to be publicity director. The All American Technological Society was only one of almost 30 organizations in the United States that came into being from Mobile, Alabama, and Los Angeles, Calif., Seattle, Minneapolis, Chicago, New York and other cities, all trying to climb aboard the band wagon. There was even a wealthy doctor who incorporated the Technocracy Political

Party in the state of Illinois, and had sound trucks out blaring the good news to the citizens of that state. There was a slew of publications, some on simple newsprint, and up to magazines printed with photographs in color, none of which originated with Technocracy Inc. and none of which had the approval of or sponsorship of Technocracy Inc. Seldom has there been assembled, as there was in the ballroom of the Morrison Hotel, such a ludicrous assemblage of so many different kinds of fish, all trying to nibble at the same bait. Technocracy did not bury them, they buried themselves. Technocracy would have loved to have had the money spent by the All American Technological Society and others in promoting the so-called convention on Technocracy in 1933 at the Hotel Morrison in Chicago, Illinois. We could have put it to better use.

The seventh Question, "..... which seems to me to be quite important was the one having to do with whether you influenced FDR at all during World War II. And here I have in mind the ads which appeared in a number of newspapers and apparently over the radio calling upon FDR to appoint you Director General of Defense. I would like to restate question number twelve, March 6. I ran into the suggestion that your distribution system was somewhat like the Army. Would you comment on this? This is of primary importance to me because of the question of value in a distribution system."

There were a few ads placed asking for my appointment, that FDR appoint me as Director General of Defense. These ads were due to over-enthusiasm and exuberance of members of Technocracy on the Pacific Coast. You do not mention the fact that there was a great campaign of Total Conscription advertisements placed in every major daily from the Atlantic to the Pacific coast, in Canada and United States, full page advertisements for Total Conscription of Men, Machines, Materiel and Money; also, hundreds of leaflets were printed and programs were put on radio in most of the major cities, from the Atlantic to the Pacific, not once but a number of times. The number of copies of ads printed by the full page in newspapers alone exceeded 14,000,000 copies. It was endorsed and approved by labor unions and other organizations in various parts of the country. The largest single local union of UAW, in Detroit, approved the Total Conscription program unanimously, 20,000 or so members. The advertisements on the Director General of Defense were peanuts, were insignificant and were stopped by order of CHQ of Technocracy Inc. The full page advertisement on Total Conscription was written by myself. It is amazing, if you wish to go into something that has an interesting sociological impact. You might investigate the Technocracy Program of Total Conscription further, you might find it

significant. Technocracy's program of Total Conscription was first made public at the Western Conference of Municipalities at Yorktown, Saskatchewan, June 1st to 4th, 1940. It was this program that resulted in action subsequently taken by the Minister of Justice, the Honorable Ernest LaPointe of Canada, when 16 days after the Yorktown release the Order in Council was issued and tabled declaring Technocracy banned because we were inimical to the conduct of the war. Strange paradox, isn't it? The Honorable MacKenzie King agreed in a pre-election Liberal Party caucus, and promised the Roman Catholic, French Canadian, Quebec members that conscription would not be introduced nor considered by the MacKenzie King Government of the Dominion of Canada. Therefore, the Quebec group forced MacKenzie King into accepting a ban upon an organization which wasn't of his own motivation, and it is highly amusing that the Honorable MacKenzie King, Prime Minister of Canada, in the midst of the war, on October 12, 1943, unconditionally lifted the ban on Technocracy and re-instated the organization to its previous status, without any limiting restrictions.

One of the most vociferous attacks on Technocracy in Canada, prior to the Order in Council, was the originally-named Catholica-Fascista Francais, later known as the Bloc-Populaire, led by Adrean Arcand. Mayor Houde of Montreal and Adrean Arcand spent most of the war in a concentration camp under sentence by the Canadian Government. Kindly do not confuse my name with one Major Scott, no relation of mine, who was one of Adrian Arcand's chief lieutenants.

After all, Technocracy has never attempted to advise, influence, persuade or cajole the political leadership of any country on the North American Continent, nor anywhere else. We are somewhat amused by Franklin Delano Roosevelt's placement in high position of 18 or more of our ex-members and associates in his administration. If they in any way influenced FDR, that was certainly not because of any direction or initiative on the part of Technocracy; it would be more likely solicitation on the part of the erstwhile members for the political future of Franklin Delano Roosevelt and their own enhancement.

Your question nine states: "Were there any members of Technocracy Inc. who moved from the IWW into Technocracy from the latter part of 1932 until the early 40's. Did any Wobblies find any satisfaction in the Technocratic Movement? I have in mind Ben H. Williams. I am not sure he is the same Ben Williams who was active in the IWW, but I do know that there was a man called Ben H. Willians in both

movements. Would you care to comment on this and would there be any other people who might be involved in both movements."

There were only two members of Technocracy who had been associated with the IWW. They did not move from the IWW into Technocracy. They merely happened to be in certain geographical locations and they moved and joined Sections of Technocracy, not in the same area, but considerable distance apart. We had no knowledge of them, or their past association, nor had ever heard of them prior to their joining Technocracy. One was the Ben Williams which you mentioned in your question nine. Both of these members were dismissed from Technocracy for conduct unbecoming a Technocrat. As to the question of whether any Wobbly found satisfaction in the Technocratic movement, if they did they would not have been dismissed from Technocracy. Technocracy is the antithesis of the program and philosophy of the Industrial Workers of the World. It never has had anything in common, and any member of any organization that joined Technocracy we were willing to accept as members provided they were citizens of the United States and were not members of any political party and had no criminal record, and were still considered to be legally competent. Over three thousand members of the Masonic Order have joined Technocracy over the years, as have over one hundred known socialists, and an even greater number of pseudo-fascists. It would be just as pertinent to ask -- did the many Masons who joined Technocracy find any satisfaction in the Organization? If they did, they found it as citizens and Members of Technocracy and not as Masons. Technocracy has had more trouble getting rid of people than it had in acquiring new members. Many of our officers and Members have joined Technocracy with the avowed purpose of proving Technocracy incorrect, and, over the years, they have signally failed to achieve their original purpose and became some of our most loyal and dedicated Members.

We have no knowledge of any other people who might be involved in both movements with the exception of one, Ralph Chaplin. Ralph Chaplin visited me in my apartment, if I remember correctly, sometime in September, 1919. Ralph Chaplin was a member of the IWW and was poet, writer and editor of their publication. In 1948 Ralph Chaplin had completed a book entitled,"Wobbly -- the Rough-and-Tumble Story of an American Radical," a book made possible by the grant of the Newbury Fellowship in Midwestern Studies by the Newbury Library to Ralph Chaplin. The book is 435 pages in length. On page 295 he mentions, "Not the least interesting person I met on my trip was Howard Scott..... We discussed at length Thorstein Veblen's 'Soviet of Engineers'

and its relation to the 'Industrial Commonwealth,' basic in the I.W.W. credo. Howard Scott and I spent an entire evening at his Greenwich Village studio apartment discussing the proposed 'Industrial Encyclopedia,' which the Wobblies had dreamed up in Cook County Jail."".....

This is very interesting, in that Ralph Chaplin in writing a book of this kind, wishes to give credence and importance to his position and the doctrines of the IWW. We did not spend more than a few minutes on the IWW credo or the "Soviet of Engineers" or the "Industrial Enclyopedia." Very little time was taken in that. On page 296 he states: "All the time he was discoursing so plausibly about teardrop automobiles, flying wing airplanes, and technological unemployment, I was looking at the other side of the studio where an appalling phallic watercolor painting was displayed among blueprints and graphs on a big easel. Evidently the 'Great Scott' was a man of diversified interests." Once again, this is quite interesting. I never had a painting, phallic or otherwise, and if I had had a painting I certainly would not mix it up with blue prints and mathematical charts. On the same page (296), the last sentence of the second paragraph, he states: "All this was done before Howard Scott came to Chicago to direct the I.W.W.'s short-lived Research Department." This again is very interesting, because we had our Technical Alliance in operation in the city of New York and never went to Chicago to direct the IWW's short lived Research Department, or anything else in the city of Chicago.

Further on in the same volume, on page 359, he states: "When Technocracy swept the country as a possible panacea, I supported it editorially. I even helped to organize Howard Scott's 'Technological Congress' during Chicago's Worlds Fair. But, at the same time, I was concentrating on the technique of a general strike which would enable labor to defend itself against inevitable civil war and armed insurrection. This program, I thought, would make it possible for the workers of America to defeat not only capitalism but any Communist, Fascist, or Nazi substitute that might be offered. Howard Scott wasn't very enthusiastic about the general strike idea. He was wearing a well-tailored gray suit now with a monad in the buttonhole, and all the technocrats were saluting him in public." This is another statement of Ralph Chaplin's that has no basis whatsoever in substance nor in fact. Neither Howard Scott nor the Technocrats organized the Technological Congress in Chicago at the Morrison Hotel. This Congress was organized by and publicized by the All American Technological Society which had no relationship to Technocracy whatsoever.

Ralph Chaplin, while he never joined Technocracy, at that time and slightly later, gave it an apparently sincere and honest support. But we must point out that I did not wear a gray suit, nor did the Technocrats wear gray suits in 1933, 1934, and 1936. I wore a blue suit in all those years. We have the data and the photographs to prove it. No doubt this kind of statement probably comes from the "quarterbacking" which the intellectuals of the University of Chicago supplied him with.

So far as Technocracy is concerned, our contact with Ralph Chaplin in 1919 was renewed 14 years later, and Ralph Chaplin, with all the enthusiasm and vigor that he had at his command regarding Technocracy, never joined the Organization. He got into difficulties at a couple of meetings and we lost contact with him completely.

In 1934 we published the pamphlet, "Science versus Chaos," which is substantially an address by me before the national Technological Congress and Continental Convention on Technocracy at Hotel Morrison, June, 1933. This pamphlet was first published by the thousands in Chicago, and it was the first piece of literature that I had to take with me on the first Continental tour in 1934. Ralph Chaplin did a beautiful job in writing a foreward, an introduction, to the said pamphlet, which we hereby quote in full:

"SOMETHING NEW UNDER THE SUN"

"Technocracy -- new, startling, fundamental -- has invaded the minds of North Americans with unparalleled positiveness and force.

"Its original research summary, a simple statement of facts about the critical period in which we find ourselves, startled the world. The questions it posed still remain unanswered.

"Technocracy not only made the American people 'fact conscious,' but confronted the entire Continent with the inevitability of fundamental social change.

"Technocracy's position is based on facts, not rhetoric. Its message has cut deep. It has reached more intelligent and functionally important citizens in all walks of life than any other organization, and continues to do so.

"Technocracy's scientific approach to the social problem is unique, and its method is completely new. It speaks the language of science, and recognizes no authority but the facts.

"In Technocracy we see science banishing waste, unemployment, hunger, and insecurity of income forever.

"In Technocracy we see science replacing an economy of scarcity with an era of abundance.

"In Technocracy we see functional competence displacing grotesque and wasteful incompetence, facts displacing guesswork, order displacing disorder, industrial planning displacing industrial chaos.

"Technocracy is the extension of science to build a civilization worthy of the intelligence of man.

"Technocracy concerns itself with the Continental area of North America alone. Technocracy marks a turning point in American history -- the birth of a greater America. Technocracy contains all the elements out of which great movements are made.

"Howard Scott, founder and Director-in-Chief of Technocracy Inc. presents in the following pages a diagnosis of the existing disorder and an outline of a New America."

It is interesting to note that Ralph Chaplin never mentioned this, as an enthusiastic approval of Technocracy, at any time in his volume. He wrote this eulogistic approval of Technocracy 14 years after the first meeting, and 15 years after that he writes a book. In that long 15 years, Technocracy had not had any contact with him and had never heard from him. The Organization had been in existence, and Ralph Chaplin could very easily have contacted us, but apparently it was his privilege not to do so. We were uninformed and unaware of either his manuscript or his book until years after its publication. We regret the bias and the incorrect emphasis and errors in his statements made in the book "Wobbly," by Ralph Chaplin. They are incorrect in substance and in fact.

You seem to be laboring under the misapprehension that there is some connection with other organizations of the United States and more specifically, the IWW. Neither the Technical Alliance nor Technocracy Inc. nor any of its original members were ever associated with any political party or organization, Republican, Democratic, conservative, liberal, Socialist, Communist or Fascist organizations, nor any labor organizations, including the IWW, the Industrial Workers of the World. The technological concepts of Technocracy are completely beyond any of the political and social philosophies, from Adam Smith, Ricardo, Proudhon, Bakunin, Karl Marx, Lenin and various other promulgators of

rightist and leftist political philosophies. Technocracy Inc. never had any illusions about the operating physical structure of the social system on the North American Continent. We never had time nor the emotional bias to engage in psychopathic hostilities toward the capitalists, the landed gentry nor the bourgeoisie. Neither were we antipathetic nor hostile to any labor or radical movements. As far as Technocracy was concerned, both attitudes of the so-called radical left and reactionary right were all alike, mere misadventures in the hostilities of the oncoming social conflict. Technocracy never was for the workers against the capitalists, nor for the capitalists against the workers. To us, Karl Marx's slogan, "Workers of the world unite, you have nothing to lose but your chains," was an ironic bad joke, as despicable as the capitalists' slogan that "free enterprise can provide the best of all possible worlds."

As the technological design for the operation of a Continent would eliminate human toil, and the "worker" would become as extinct as the Dodo bird, it axiomatically follows that as any Continental social system eliminates toil and the "worker," all of the other proprietary rights and proprietors will join the "workers" in the limbo of the forgotten past, because when toil and the workers are disposed of, the bourgeoisie become extinct. All of the political philosophies from Leninist-Marxism of the left to the European Catholic-Fascism of the right extoll the corporate structure and attempt to distribute land to the peasants and freeze agricultural workers to the soil.

Modern technology never got anywhere as its beginnings in the industrial revolution were meager and blockaded by the limiting concepts of those who introduced machine processes as adjuncts to human labor in the acquisition of greater profits. Under human toil and hand tools, the annual increment of production was so low each year that a major investment required a century for the amortization of principal and interest; or to state it another way, the re-investment of capital in capital goods could occur approximately once in a century. Private enterprise in these United States and elsewhere today are demanding that the technologists and engineers design equipment and continuous processes capable of amortizing out the interest and principal in a much shorter time. They do not realize it, but what they actually are doing is selling their own system short. It is really ironic that the fastest returns are obtained of capital goods by those investments which install the latest in modern technology. We have today in the United States equipment which, if operated at 75% or more of capacity, will amortize out the millions of dollars of investment in 5 1/4 weeks. This is a capital

re-investment rate of around 960 times in a century instead of one. The question here to ask is whether Woodrow Wilson, Franklin Delano Roosevelt, General Eisenhower, Winston Churchill, Josef Stalin, or John F. Kennedy, -- did any of them or all of them have the slightest knowledge of the factors underlying our technological progression? On the other side of the picture, did Adam Smith, Karl Marx, Sorel, Lenin, Mao Tse Tung -- were they capable of operating in this field of knowledge? The answer is that both collections of persons, the so-called political philosophers and political governing heads of the last 60 years, have possessed no fundamental knowledge of the economies they were attempting to manage or to philosophically analyze. Not one of the array of figures on the international scene has had sufficient knowledge of the modulus and calculus of design to build an efficient privy on wheels. The situation in this respect might be amusing if it weren't so pathetic. The Russians wasted 15 years of their national energies in the schismatic doctrinaire battles between those who spent their time advocating world revolution and those who wanted to interpret Marx for Russia and the Russians. If the Russians had been able to orientate their technology 10 or 12 years before they did, the fascist armies of Europe would have been defeated at the Russian borders, and it would have been Western Europe that would have been devastated.

In Europe, World War I disintegrated dynasties and empires. Violence and chicanery took over. The Cordon Sanitaire backed by all the reactionary forces of Europe, political and ecclesiastic, were about to nurture the soil for fascism. Western European fascism originated in Europe in 1919, and fascism had its movements in practically every country west of Russia. Benito Mussolini in Italy and Adolf Hitler did not create fascism; they were created by it, and the result was that you had the Sinarquista in Portugal, the Falangista in Spain, the Croix de Feu and Cagoulard in Belgium and France, the Stahlhelm in Austria, the Knights of St. Michael and the Iron Guard in Roumania, Fascists in Italy, Ustachi in Yugoslavia, the Arrow-Close of Hungary and the Nazis in Germany. There were similar developments in Poland, Norway, Lithuania and eslewhere. United States revived Germany after World War I with the Young Plan and the Dawes Plan and other assistance. After World War II, United States poured billions into Europe under the Marshall Plan. Since the war, the figures reported that $104,000,000,000 have been spent abroad by the United States. Our policies have revived private enterprise and upheld reactionary regimes but they haven't solved any physical problems of any part of the world nor solved our physical problems at home. They still remain facing us and today are greater than ever within history.

In the early days of the Technical Alliance, we were visited by all kinds of people, from Americans of the upper levels of finance and industry to a raft of writers, so called radicals and leftists. In a sense we technologists and engineers were somewhat naive at that time, in that any knowledge that we might have had of any of the movements was purely cursory and not from intention. All of the movements and all of the literature had nothing to offer Technocracy. Technocracy was proposing a technological re-design of the Continent in a closed field of operation. We, as an organization, were not interested in preserving the status quo, nor were we imbued with any conspiracy to destroy it. We were not concerned with wasting our time trying to capture the entire scientific and engineering profession of this Continent as members. We knew only too well that if every technologist and engineer designed the equipment of tomorrow to operate at higher speeds with greater energy consumption per unit of time, and less energy per unit produced of products or services, that they did not have to be Technocrats, that, in their professional way, they were doing their best to behave as if they were. It is therefore obvious that none of the political philosophies, right or left or center, and none of the social movements or labor organizations had anything to offer Technocracy. In fact all of them were impedimentia in the pathway toward tomorrow. They had nothing to give us because we were involved in an original piece of research in an unique projection that had never been proposed before. These movements had nothing to give us; they might in some way attempt to imitate us, to borrow from us, or to block us, but in the main they made no real attempt to understand Technocracy's design and social consequences. We received far greater recognition abroad and more serious study by scientists, technologists and engineers in other lands. They even proposed to extend our energy determinants to a world basis as suggested by the title of one engineering publication of Czechoslavakia, "Der Welt Energie." Technocracy can be applied to other Continents, but as the soil, water, climate, geographical conformation and natural resources differ with each continental area, the social resultants, while they would be enormously advanced over anything today, would not be all equal or the same. The differences would occur because of the differences of the physical constituents of the continent and their energy factors. In other words, Technocracy is applicable to any continental area of the world, but, as stated distinctly, socially they wouldn't have the same returns, nor would they all have pink cheeks.

We regret that the By-Laws and General Regulations of Technocracy Inc., and the policies in general prevent us

from giving you any figures on membership of any period of Technocracy's history. This has always been the policy of Technocracy. We hope that the preceding will give a satisfactory response to your questions and enable you to complete your dissertation in a more extensive way.

Very truly yours,
TECHNOCRACY INC.

Howard Scott
Director-in-Chief

HS/skb

The Scourge Of Politics In The Land Of Manna

By Howard Scott

Through the missed of the fourteen points, the clamor of the League of Nations, and the speed of the "may I knots," shrieks the siren of the newspapers proclaiming the efficacy of some one political programme as a panacea for the immediate ills. We have with us today as many breeds of political parties as we have religious sects, all advocating greater or lesser reforms, varying in their demands according to the strata of society they represent, all antithetical to each other, but all possessing one common factor, their belief in the efficacy of political action.

Color, music, religion, morals and politics are subjective realities. For the color-blind, as, for instance, those who fail to perceive the greens, light of this color does not exist, although it may for others. Those of normal vision may have the sensation which they call green light, which means, not that the green light is real, but only that the impression is real to them. By the defective in hearing, certain sounds may not be heard at all, although another man may hear them clearly. Sound does not exist for one who is totally deaf.

Religions, morals, and politics, being beliefs, create impressions which are real to some people, to others are totally different, varying in accordance with race, geographical location and economic conditions, and to others, do not exist at all.

Political power is centered in the emotional expression of the mass, and its adherence to the political party in power depends on the amount of belief in each individual member. Written on the flyleaf of the book of rules of every able politician and statesman is that sentence of Macchiavelli's, "The appearance of belief in any popular faith is as necessary as the belief in it is harmful;" followed by the addenda of Bismark, "Religion, patriotism, and politics are the primary weapons for controlling the mob." The political leaders of the past and present have, through the inculcation of beliefs or subjective realities into the minds of the mass, achieved for themselves a goal which lies on a separate and distinct plane, and does not concern itself with the objective realities of the mass. It is the fervour of faith, the fanaticism of belief, the reaction of all primal instincts and personal impressions that sweeps a candidate or party into political power. If there existed that queer paradox, a political party, based, not upon theory but upon actual facts, the situation would not be such a hopeless one.

The structure of our present legislative bodies is composed

of representatives elected on the basis of geographical divisions, the qualification of an electee consisting in the possession of a definite amount of capital vested in real estate, bond, or other holdings. He is not required to be involved in the production of any of the essentials of life for his district, nor even to possess a knowledge of the methods of production. We therefore have that queer anomaly of a man being elected from a division, the important function of which, for the country as a whole, is the production of coal, who is a lawyer, and whose knowledge is limited to law and litigation; or we have a doctor of medicine representing a steel district, or a banker a farming district. Thus are made possible the debates which frequently occur in Congress on the subject of operating railroads in which lawyer, doctor, banker and professional politician participate with equal ignorance, arguing away the nation's legislative time and money. And though such an unrepresentative group may legislate, it becomes still more innocuous through the fact that it does carry its legislation into execution.

There are before the public at the present moment a number of political expedients through which they are attempting to solve one of our primary industrial problems, namely railroads. But the railroads are only one unit of the industry of transportation and cannot be dealt with separately and obtain efficient service in our common carriers. Of all the plans presented not one has taken into consideration the technique of this industry, or has apparently realized that under scientific administration of our carrier system, railroads must be secondary to that more efficient method of hauling bulk cargoes, namely waterways -- depending, of course on the geographical conformation of the country. Nor do they realize that the motor trucks on our highways are relieving the railroads of an ever increasing portion of their bulk freight. Still again! Nor do they realize that our transmission lines and our pipelines provide a better method of transporting power and fuel than do our railroad coal-cars and tank-cars.

The inadequacy of any plan, that proposes to allow the workers to share in the profits of an industry, is that it places the basis of efficiency not on scientific grounds, but on methods of management that will obtain greater profits for all parties involved. If such a plan were imposed on the transportation system of this country, it would induce a condition so static that all other forms of transportation would be discriminated against in order that the railroad workers and railroad capitalists be enabled to maintain their established earnings. The railroad interests in the past, by devious financial and financially induced legal means, have killed every form of water transportation in the United States excepting those required by the railroad interests for their own ends. Our railroad

interests have chased the river steamer and the canal boat out of existence, leaving them and their docks to disintegrate under the ravages of time. In the majority of cases, the rivers and waterways of our country are today paralleled, not only on one, but on both sides by railroads. Under scientifically operated transportation, the waterways, with feeder highways or short haul feeder railroads, would relieve the present trunk line railroads of the United States of over one-half of their freight load. So it is that any political solution to the railroad workers' problem endangers the transportation problem of the entire nation. Efficient transportation is not only a matter of carrying goods, but also of eliminating the unnecessary carrying.

In view of the complexity of the industrial situation in this country, and the fact that the industries are so closely interrelated, any fundamental change in the methods of operation of any one industrial unit would involve a corresponding change in every unit that is correlated to it; and any method of scientific operation which might be introduced in any separate unit would be immediately sabotaged by the financial control, which is equally interlocked and correlated, and thereby strangle at birth. The absurdity of any plan for the operation of railroads (whether it be the Plumb plan, or it's adversary, the Cummins bill) is immediately apparent when one is brought into cognizance of the fact that the present group of railroad interests own and control the sources of supply of power and fuel in coal, oil, and water, and that they own and control the manufacturing of railroad equipment, and in the further knowledge that the earnings of the railroad groups are accentuated by the carrying of products which they own and control in preference to transporting them by a more efficient method, but one in which they have no vested interest. The introduction of a scientific system of operation would carry with it the scientific use of material inter-related with the railroads, and the scientific use of one of these materials alone, namely bituminous coal, which is one-third of all the freight moved on common carriers would render it impossible for the railroads of this country to earn dividends on their present capitalization.

We are living today in an industrial age which concerns itself with the production and use of energy and matter in the forms of electricity, steam, steel, lumber, cotton, etc. The amount of energy or work required to produce a given amount of a certain material under a given condition can be accurately calculated. The machine necessary for the production of so many units of power can be accurately designed. The resultant of a chemical reaction can be determined before the reaction takes place. The candle power of a given amount of electricity is a known factor. The food content of a bushel of wheat of standard grade is an establish-

ed fact. The production factor of the worker can be determined under all conditions.

Political legislation cannot decide the question of the number of hours a worker shall work in a given industry under a given condition, or what materials, quantity and quality, shall be used, or the methods of production, unless politics can correlate all industry. Why be carried away by the momentum of our multiple verbiage in the discussion of the high cost of living? Why not consider the fact that only one in ten of our population is engaged in actual production?

Why allow a million petty stores to muddle up the problem of retail distribution with their inefficiencies? Why not eliminate 75 percent of the inefficiency and the individuals engaged in this trading, by consolidation into scientific distribution depots on a large scale, putting the 75 percent of the men no longer needed into essential production?

Why insist upon the different agricultural industries being personally operated by any method that the individual farmer cares to adopt? Why not industrialize agriculture by operating large areas as industrial units, vesting the personal rights of the farmer, not in possession, but in an equity of productive effort?

Why mine bituminous coal for the production of power? Why waste fifteen-sixteenths of its multiple content by burning it under boilers? Why not develop the remaining 97 percent of our water-power resources in this country?

Why operate manufacturing establishments 2,000 miles from their source of supply? Why not have manufacturing establishments located in the center of their source of supply, or as nearly so as possible?

Why have the ill-health of a citizen be an incentive to profiteer on the part of our medical profession? Why not have public health and hygiene nationally operated on the basis of service?

Why have the security of the individual from starvation be the income provider for the insurance companies? Why not have it that the individual's social service contract with the state provides him with a livelihood until death?

Why involve ourselves in the discussion of the laws and the inefficiencies of our law courts? Why not eliminate the major number of inefficiencies by cancelling all causes of litigation?

Why indulge our national vanity in wasting effort, time, and materials in the production of gold as a ballast for international treasuries, necessary with a gold basis currency? Why not have a currency that one cannot store up to rust, and that thieves cannot steal, of purchasing value only to the individual to whom it is issued in exchange for his productive effort?

Why tolerate the throttling of our industrial life by politicians and political action? Why not eliminate all politics and political action by instituting an industrial organization composed of men who, by their training and experience, have the knowledge of operation and direction?

Why the demand for higher wages? Why the higher prices? Why not a system of industrial operation wherein one would obtain, not a wage that is in the ratio of 8 percent to his productive effort, as exists today, but 69.3 percent, the remaining 30.7 percent being no tribute to capital, but the normal contribution of each citizen to the requirements of replacement and depreciation and the maintenance and operation of the administration and it's indirect industries, such as education, sanitation, etc.

These questions are not of a destructive character; individually they may seem so, but as components of a sequence they partially reveal the possibilities that would develop in a plan, nation-wide, that was not political, but industrial, wherein production would be for use, not for price.

It is possible under a system of scientific administration to increase the present standard of living over 800 percent. The day is pregnant with the need of just such a readjustment. There can be no cessation to industrial unrest so long as the conditions heretofore mentioned persist. They are blocking the wheels of the industrial mechanism. Given a plan or design of industrial administration the movement of the mass can be directed into constructive channels, but, without such, the country shall be plunged into a maelstrom beside which the Russian revolution is but a tempest in a tea-pot; no, not a maelstrom, but an eruption of mud.

—One Big Union Monthly
September, 1920

"The Scourge of Politics In the Land of Manna" and "Political Schemes In Industry," ironically enough, are a repudiation of the political objectives of the I.W.W. publication in which they were published, and politics in all other forms. But, more important, the articles perceived the pattern of things to come -- the advanced engineering concepts which have since become Technocracy, the future design of social operations for North America.

—Editor

Political Schemes In Industry

By Howard Scott

During the last five years the world has been flooded with two classes of propaganda, one advanced by the capitalistic powers in an effort to maintain the present, or rather to reclaim a previous status quo, and on the other side, one even more intense advanced by radical parties and labor unions in an effort to do away with the present system altogether. The first specie of propaganda necessitates no comment, as the world is in a state of flux, and that which concerns itself with maintaining what already is, is dealing with a dead carcass. So, that which is of primary importance, is that propaganda which is for the purpose of burying the carcass of present systems, and substituting a living mechanism.

WHO ARE "THE WORKERS"

There are many programmes of a supposedly radical nature running from the Plum plan to communization. These are infinite in their variations, but their variations are mostly as to how the change shall come about. Their appeal is made to a rather indefinite character, namely, "the worker." Their appeal is made on the grounds of robbery, corruption, and the unethical practices of the present system. Their appeal is made for a change in control to place the worker as the dominant factor and right these ethical wrongs. The kernel of the more radical schemes is the expropriation of the present owners of industry and property. Therefore, all this propaganda busies itself with methods of intriguing the worker as an individual into methods of expropriation and idealistic conceptions of a workers' state.

"Workers of the world unite!" has come to have as great a political slogan value as "Liberty, Equality, Fraternity!" had during the French revolution. It is a fine phrase, but the question is "Unite for what?" The unity so far achieved bears no relationship to work. Not that the slogan should not be used; it has its value in an advertising nation. Wilson's "He kept us out of war" gained for him sufficient adherents to re-elect him, and to enable him to put us into war. Slogans of the past have either been exhortations or expressions of liberality with spiritual ideas, while slogans of more recent date have gained power for their originators by their proclamation of great material generosity. "All power to the Soviets!" and "Land to the peasants!" undoubtedly are the greatest gifts that have ever been made, but like all gifts they carry with them no obligation either in use or abuse. "Labor creates all wealth." That human effort produces all is only too obvious. "To the worker belongs the product of his toil." Once again the expression of an ethical right!

Who is "the worker" to whom all this propaganda is addressed? In industry today, whether in a steel plant or a hospital (for we are going to call all essential work industries, direct or indirect) the divisions of functional service are four in number. These are (1) manual: consisting of unskilled and skilled labor, mechanic and expert mechanic; (2) clerical: consisting of clerks, accountants, auditors, who in the future should be industrial statisticians; (3) supervisory: consisting of foremen, superintendents and managers, who in the future should be functional supervisors, and not job bosses; and (4) technical: consisting of draughtsmen, inspectors and technicians. This is paralleled in a hospital by elevator operators, ambulance drivers, record clerks, nurses and internes, superintendents, laboratory workers, bacteriologists and consulting experts. In an industrial state the concept of "the worker" must include all of these divisions. Treating the worker apart from his industrial function is appealing to a political entity. We all cease to be workers when we are off the job. Today "all those who work for wages" is the definition of "worker"; whereas industrially it should be "all those essential to production." The advertising man and salesman work for wages, but they perform no function in the producing or distributing of any material. Any scheme proposed as a solution for the present unrest which does not contain within its plan for the operation of industry specifications for increasing the producing power and eliminating all extraneous occupations is a political scheme and doomed to but a brief existence. Any scheme which contemplates the maintenance of present foreign trade is nothing short of political imperialism under another name.

To the economist and theorist the abolition of capitalism is the crucial point. Dealing only with financial wealth and its distribution these people seek their remedy only by making distribution equitable. But the very mechanism of material production and distribution has been built by the capitalistic regime, and its waste of materials and energy surpasses the sum total of its production so that, no matter who comes into possession of the present industrial system, the result will differ little from the operation of today.

Shylock says "You take my life when you do take the means whereby I live." Take from the capitalist his means, or in other words his system, and the capitalist will undoubtedly be relieved of his life as such. But those who take over his means, or system, fall heir to the same methods and inefficienies, and inevitably to much the same life as they had lived before.

NO CHANGE OR REVOLUTION HOWEVER GREAT FROM THE POLITICAL POINT OF VIEW CAN FUNDAMENTALLY CHANGE THE STANDARD OF LIVING UNLESS IT CARRIES WITH IT A CHANGE IN THE BASIC TECHNIQUE.

THE SHORTCOMINGS OF THE GUILD SYSTEM

The guild system of the workers of Great Britain proposes that industry shall be operated by a number of industrial guilds, each guild to be composed of the trade unions engaged in one industry and to be responsible for its product, the health of its workers, and the maintenance of its material equipment. During operation the workers in a guild are paid a national basic, or minimum wage. Their goods are sold in the open market to individuals or other guilds. Cost and maintenance are subtracted from the proceeds, and the surplus is distributed pro rata among the workers in the guild. Although the guildsmen call the guilds industrial, a perspective of one of them shows that they are rather a heterogeneous collection of several industries and associated trades. For instance they have garment, fur, shoe and artificial flower factories in one guild called the clothing guild. Another guild is comprised of what is known in Great Britain as the engineering trades, including ship building, locomotive building, machine building of all kinds and all repair machinists. The conception of a guildsman is of a guild parliament sitting in England, wherein representatives of all free governing dominions of the British Empire are represented, maintaining the present position of Great Britain as the world's industrial middleman. Canada and Australia are treated as subjective industrial entities, to be directed by the industrial policies of the guilds of Great Britain. Of course India and other colonies, not being self governing, would have no representation. The producers would be represented by the industrial guild to which they belong, the consumers by a political state parliament which is the supreme national executive body. It will be seen that while the guilds will appropriate the means of production and distribution from their present owners, they are still imperialistic in that they would attempt to maintain the political organization of the British Empire, thereby retarding the industrial development of other countries, and causing the exploitation of other workers. Within the guild itself, while admitting that employment could be made more regular, and housing and sanitary conditions could be much improved, the basis of production remains a capitalistic one in that they are producing for sale in the open market, subject to price fluctuation. Though the surplus profit returns to the workers, the productivity varies so enormously in different industries that in spite of a basic wage, incomes would vary tremendously, creating a new capitalist class. They would use the same monetary system and the same banking system, the same internal fiscal policy of the state, in that taxes would be levied on the guilds by parliament, and the guilds would act as tax collectors to their individual members. They can employ their technicians and managers, etc. on any agreement which the individual guild cares to make. Any process or invention is

submitted to the guild and purchased by them if found desirable. Thus the guild is not a complete complement of industrial workers and is not obligated to accept any improvement.

The British textile guild would go on importing raw cotton and manufacturing it into goods and in turn exporting it abroad. The same treatment would be accorded silk and wool. Today, Great Britain has 46 percent of the world's cotton producing spindles, whereas her consuming capacity is less than 18 percent. She is entirely dependent for the large percentage of her cotton upon United States. Great Britain is some three thousand five hundred miles from our cotton growing region, and the industrial question naturally arises "Are the other industrial countries going to continue to pay tribute to either the British worker or the British capitalist to manufacture their cotton goods for them?"

The production factors in the fabrication of raw cotton into finished goods are relatively similar in United States and Great Britain. As both the transportation of cotton and its manufacture are dependent upon power, and as Great Britain is dependent upon coal as her source of power, it is evident that, as power from coal costs three and one-half times more in Great Britain than it does here, industrially it costs more to produce cotton cloth in Great Britain than it does here. This is not financial cost, but what the engineer calls production cost. Let us see what the respective coal production costs amount to in the two countries.

COAL AS A FACTOR IN PRODUCTION

In Great Britain there are 1,200,000 coal miners producing only 226 tons per man per year. In United States we have approximately 760,000 coal miners producing 794 tons per man per year. It is self-evident that, barring a period of transition to a new order, Great Britain cannot afford to support 1,200,000 men for mining coal for the purpose of maintaining foreign trade. Neither could any other country pay their upkeep. The coal mines of both Great Britain and this country are demanding attention. In both countries similar schemes have come to light. Neither nationalization, coal guild, nor communization deal with ton-hour production per man, nor do they take into consideration the present methods of using coal, which utilizes only one-sixteenth of its value. To technically utilize coal necessitates not only a change in the methods of coal mining, but also affects all transportation and present power plants. It would mean the creation of new industries, and the elimination, wholly or in part, of old ones. This is illustrated very aptly in the United States where 34 percent of the freight load of our railroads is coal. The elimination of all coal transportation is not only scientifically possible, but technically inevitable. Here arises the prospect of a well-to-do railroad guild and a prosperous coal guild being confronted with the fact that

the rest of industry will not tolerate a lowering of its standard of living by maintaining a railroad guild one hundred percent overmanned, and a coal guild five hundred percent overmanned.

FUNCTIONAL OWNERSHIP AS BAD AS PRIVATE PROPERTY

Today, the peasants of France are preventing France from entering a new period of industrial progression. The peasants of Russia provide for themselves, but do little more than that. These are examples of groups of workers who persist in a method of production which, although they prefer it, is nevertheless the result of that deadliest of industrial diseases, stagnation. The medieval guilds and the pueblo communes all achieved craftsmanship, equitable distribution of food, clothing and shelter, and equitable working participation, and died because they persisted in holding the proprietary rights of function inviolate. From time immemorial, when any group has achieved craftsmanship and tolerable living conditions, the group has always attempted, by enforcing numerous regulations, to prohibit any change or improvement in the functional sequence to which they have become accustomed in their trade. They have sought by all means in their power to make functional ownership as great a vested interest as entailed property. They have striven to pass their craft on from father to son, even practicing this today in India and China, where the same method is being taught to apprentices as was taught four hundred years ago. Private property is dangerous because it prohibits complete utilization of material resources. Functional ownership is even more dangerous in-as-much as it prohibits any improvement either in the use of material resources or human effort.

Political history records that men are voted into positions, but it does not record men ever voting themselves out of positions. Any group of men which forms itself into a body to control the processes of an industry does not vote in a new process whereby they would automatically be voting the major part of the group out of that industry. The coal miners of Great Britain, although they are insisting upon nationalization, and although it is admitted that under the present regime they cannot achieve any fundamental change in the methods of coal mining and coal use, still are demanding something which, under the present system or a future one, would amount to nothing more than a slightly higher standard of living for themselves as individuals. It is inconceivable that miners organized into a militant body would democratically vote into existence another system of coal mining and coal use whereby nine-tenths of their present organization would have to be given employment in other industries.

THE LIMITATIONS OF LABOR'S VISION

Today, the world over, all programmes for a new order

content themselves with the advocating of a mere shift of control. All of them preserve the present industrial entities. All of them propose to maintain the present lines of trade. The majority of labor organizations are not capable of operating industry. There are a few that are capable of operating it as well as the capitalist, but that is not sufficient. There are none that can operate and coordinate the present producing mechanism with the needed accompaniment of a change of technique. A reply is often made to the statement of this condition, to wit, "The workers will acquire the knowledge and the organization after they come into 'power.'" In Russia, where 92 percent of the population are peasants, and where there is only a young industrial development, a dislocation of industry, while serious in itself, does not bring starvation to any large percentage of the people. In United States, to attempt to acquire an operating knowledge of an industry and an organization after the change would be preparing for a birth while the autopsy was already being carried on. The interdependence of industry with industry is such that the absence of a producing organization capable of directing and operating industry would bring about nothing short of chaos and dissolution. We have no such organization, not even the proper nucleus of one, and yet the propaganda for change goes on. The organizations of the present enlist either those who profess a belief or the worker as an individual. There exists no industrial organization wherein members function in a similar capacity to that in which they work. This is best illustrated by the man who, when asked at a meeting what group he represented, said that he was a socialist, and from whom was finally dragged the information that he was a stevedore, and represented the stevedores as such. A Steinmetz may join any one of a number of labor organizations as an individual, but there is no organization of workers which he could join in his industrial capacity of research technologist of the equipment division of the power industry.

The glass blowers, some years ago, possessed a very strong union and were very highly paid. They attempted to maintain their union and the old form of glass blowing in the face of a new industrial process. The process won, and the process will always win eventually. Today, it throws men out of jobs, but in the future every improved process will raise the standard of living and increase mens' leisure. Today, there is not a single industry which cannot be revolutionized by processes already proven. Technical science has traveled so far ahead of the industrial order that, if only that which is already known were applied, its effects would be farther reaching and more fundamental than any political change could dream of accomplishing.

_One Big Union Monthly
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